

**Results:** Results showed that doctors rarely take photos themselves. Children and extremities are harder to get in focus. 72% of photographs were in focus and 95% of images in focus were relevant to the management.

**Conclusion:** Clinicians should take the responsibility for photographing wounds in order to ensure the most accurate and focused images are used for referrals to specialist services triaging trauma. A single view in focus is more valuable than multiple blurred views.

#### 0509: IDENTIFYING POTENTIAL RISK FACTORS FOR FLEXOR TENDON RUPTURE AFTER REPAIR: A RETROSPECTIVE COHORT STUDY

C. Rutherford\*, R. Hodnett, N. Kandamany. *Canniesburn Plastic Surgery Unit, UK*

**Aim:** To identify potential risk factors for flexor tendon rupture.

**Methods:** We performed a retrospective cohort study of all patients admitted with traumatic flexor tendon rupture to Canniesburn Plastic Surgery Unit over a two year period. Patients were identified using the Canniesburn Trauma Database. Data was collected from operation notes and follow-up documentation, including mechanism and zone of injury, involved tendons, grade of primary operator, patient age, sex, hand dominance, and occupation.

**Results:** 120 patients underwent total 220 primary repairs of Zone I and II tendon ruptures. 31 tendons re-ruptured (14%, 20 patients). Consultant primary operators had 21% failure rate, trainees 10%. Operation notes fully documented repair technique (including technique, suture material and number of strands) in only 20% of these cases. Rupture was associated with manual occupation (10 patients), non-compliance (10 patients), delayed presentation (6 patients). Importantly, 8 patients went on to have multiple further procedures including 1 amputation for contracture.

**Conclusion:** In certain high-risk patients, further education may be beneficial in reducing non-compliance; and although trends are towards early mobilisation, longer-term immobilisation should be considered for certain patients to reduce risk of re-rupture and further operations. We plan to introduce a standardised operation note to improve documentation accuracy.

#### 0531: DISTAL PHALANGEAL MALLET INJURIES OF THE HAND: A SYSTEMATIC REVIEW OF OPTIMAL OPERATIVE MANAGEMENT

E. Theodorakopoulou<sup>1,\*</sup>, K. Mason<sup>1</sup>, A. Ghanem<sup>1</sup>, F. Iwuagwu<sup>2</sup>. <sup>1</sup>*Barts and the London School of Medicine and Dentistry, UK;* <sup>2</sup>*Broomfield Hospital, UK*

**Aim:** Treatment of mallet-type distal phalangeal fractures raises the debate of conservative Vs surgical management. Conservative management is highly effective but relies on lengthy splinting and patient compliance. This study aims to evaluate high-level evidence on optimal operative management and functional outcomes in acute mallet injuries.

**Methods:** We conducted a PubMed search comprising the terms “mallet finger”, limited to randomised control trials and case-control studies evaluating operative modalities for adult mallet injuries.

**Results:** No level I&II evidence studies were found. Two case-control studies were relevant: 1) A retrospective multicentre trial compared 58 mallet fractures treated in 3 ways: K-wire and extension-block pin; K-wires as joysticks; ORIF using screws. All cases showed good bony healing with no significant functional differences between modalities. Operative time and complications were higher with ORIF, however these patients mobilised and returned to work quicker. 2) Seventy-two patients were treated by A) open reduction with pull-out wire B) percutaneous pinning and plaster splint. Group B demonstrated statistically significant reductions in operative time, incisions, complications (necrosis/infection) with higher total active movement scores.

**Conclusion:** There is paucity of high-level studies evaluating operative treatment of mallet injuries. Percutaneous fixation is effective and appears to be more advantageous compared to ORIF.

#### 0537: OUR EXPERIENCE OF A DIRECT CLOSURE TECHNIQUE FOR SURGICAL REPAIR OF LARGE THORACOLUMBAR MENINGOMYELOCELES

K. Maul\*, L. Touil, A. Fattah. *Alder Hey Children's Hospital, UK*

**Aim:** Surgical repair of large myelomeningoceles is challenging. The goals of repair are to create a tension free, durable closure which has sufficient

vascular supply to promote healing. Most previous techniques described do not permit direct closure of the skin and require tension releasing incisions and/or skin grafts. We aim to review our experience of a direct closure technique which restores normal anatomy and minimises morbidity and scarring.

**Methods:** Retrospective case review of three closures of large myelomeningoceles with bipedicle flaps of latissimus dorsi and thoracolumbar fascia. Our technique, modified from Ramirez et al (1987), permits a two-layer straight-line closure of large myelomeningoceles.

**Results:** All three cases fully healed with no reported complications such as CSF leak, dehiscence, infection or shoulder problems. Our technique produced a moderate tension single linear scar which healed well in all cases.

**Conclusion:** Our technique exploits the vascularity and elasticity of a child's skin allowing for the closure of large myelomeningoceles without the need for skin grafting or separate skin relaxing incisions. This achieves adequate layered, watertight closure over the dura whilst minimising donor morbidity. The favourable outcomes observed to date indicate that this technique has a place in the management of large myelomeningoceles.

#### 0574: WHY ARE WE WAITING? INSIGHTS INTO THE OUTPATIENT EXPERIENCE

G. Phillips<sup>1,\*</sup>, C. Abela<sup>2</sup>, J. Collier<sup>2</sup>. <sup>1</sup>*Stoke Mandeville Hospital, UK;* <sup>2</sup>*Chelsea and Westminster Hospital, UK*

**Aim:** This study aimed to determine whether craniofacial outpatient clinics were running to schedule, and identify factors lengthening patient waiting time. By adapting these factors, we aimed to minimise waiting, and improve clinic efficiency.

**Methods:** “In-touch” an electronic appointment system was used to collect and calculate patient arrival time, waiting time and appointment duration over a 3 month period. The average patient was seen 45 min after their scheduled appointment time, with the average consultation lasting 21 min (most were scheduled for 10–15 min). Data was then collected from 20 clinics (144 patients) after the introduction of regularly spaced 20 min appointments.

**Results:** Most patients arrive early for appointments (73% pre-change and 86% post-change), however long delays were faced before each consultation (average of 45 min), and this increased with clinic progression. Following the introduction of longer, 20 min appointments, average waiting decreased to 8 min ( $p < 0.05$ ), with no increase in delay as the clinic progressed. In addition clinics finished on average 6 min early rather than 73 min late ( $p < 0.05$ ).

**Conclusion:** The introduction of realistic appointment times and regular scheduling has led to minimal delay in the outpatient clinic. As a result clinics are finishing on time.

#### 0689: SURGICAL SITE DRAINS IN FREE-FLAP BREAST RECONSTRUCTION: COMPARISON OF COMPLICATIONS AND OUTCOMES IN PATIENTS WITH VERSUS WITHOUT DRAINS

E. Theodorakopoulou<sup>1,\*</sup>, R. Shirley<sup>2</sup>, P. Mutthaya<sup>2</sup>, S. Varma<sup>2</sup>. <sup>1</sup>*Barts and the London School of Medicine and Dentistry, UK;* <sup>2</sup>*Leicester Royal Infirmary, UK*

**Aim:** Enhanced recovery programmes, which advocate using no surgical-site drains, are being implemented across a range of specialities. This study evaluates whether the presence/absence of drains in free-flap breast reconstruction affects post-operative recovery.

**Methods:** We retrospectively evaluated electronic operative logs, case-notes and outpatient clinic documentation of 73 consecutive patients who underwent free-flap breast reconstruction by a single surgeon, obtaining information on demographics, type of surgery, use of drains and post-operative outcomes.

**Results:** The DIEP flap was most commonly used (52.8%). 9 patients (12.3%) had no drains. Drainage duration was 4 days on average (Range: 3–15 days). Inpatient stay was 5 days in the no-drain group, 6 days in the drain group. Seroma incidence was 8.2% in the drain group, 11% in the no drain group. Haematoma incidence was 3.1% in the drain group, 0% in the